

### **Remarks**

Claims 1-18 are pending in this application after entry of this paper. Claims 1 and 9 have been amended to particularly point out that the recordings for a single inflection of a single speech item are a limited set of recordings that represent a limited set of ligatures with adjacent speech items including only recordings having a vowel at either end and recordings having no surrounding ligature distortions. This aspect of the invention is exemplified in the specification at page 31, line 13 through page 33, line 12, among other places. Claims 17 and 18 have been added. These claims are directed to a method of the invention. More specifically, claim 17 particularly points out that the recordings for a single inflection of a single speech item are a limited set of recordings that represent a limited set of ligatures with adjacent speech items including only recordings having a phoneme at either end from a limited set of phonetic groups and recordings having no surrounding ligature distortions. Claim 18 further defines the limited set of phonetic groups as including plosives, fricatives, affricates, nasals, laterals, trills, glides, vowels, diphthongs and schwa. The invention, as defined by claims 1-18, is believed to be patentable over the prior art.

The Examiner had rejected claims 1-16 under 35 U.S.C. 102(b) as being anticipated by Hata et al. (U.S. Patent No. 5,878,393). Applicant believes that Hata fails to suggest the invention.

Claim 1 recites a method for converting text to concatenated voice by utilizing a digital voice library and a set of playback rules. The digital voice library includes a plurality of speech items and a corresponding plurality of voice recordings. Each speech item corresponds to at least one available voice recording. Multiple voice recordings correspond to a single speech item and represent various inflections of that single speech item. The method includes receiving text data, converting the text data into a sequence of speech items in accordance with the digital voice library. The method further comprises establishing multiple voice recording in the digital voice library that correspond to a single inflection of a

single speech item, for a plurality of inflections of a plurality of speech items, that represent various ligatures for the single inflection of the single speech item with adjacent speech items.

Claim 1 further recites that the recordings for a single inflection of a single speech item are a limited set of recordings that represent a limited set of ligatures with adjacent speech items including only recordings having a vowel at either end and recordings having no surrounding ligature distortions.

This aspect of the invention is exemplified in the specification at page 31, line 13 through page 33, line 12, among other places. More specifically, page 33, lines 1-12 specifically convey the concept of utilizing a limited set of recordings that represent a limited set of ligatures with adjacent speech items including only certain recordings.

Hata describes a concatenative reading system. Hata does describe the broad concept of pronouncing words differently, based on the ending phoneme of the preceding word and the beginning phoneme of the following words. The Examiner has directed Applicant's attention to Hata, Col. 4, lines 27-55. This portion of Hata does describe dictionary samples including a different sample for each pitch contour (lines 28-31). Also described is the concept of pronouncing phonemes differently, depending on what sounds may be preceded and follow the phoneme.

Hata fails to recognize or suggest using a limited set of recordings that represent a limited set of ligatures with adjacent speech items including only recordings having a vowel at either end and recordings having no surrounding distortions as recited by claim 1 but instead Hata only generally discusses concatenation and pronunciation. Applicant recognizes the advantages of utilizing the limited set of recordings, and Hata makes no suggestion of this aspect of the claimed method. Accordingly, Hata fails to anticipate the invention.

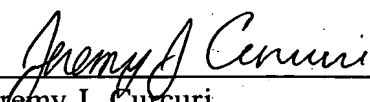
For these reasons, claim 1 is believed to be patentable. Claim 9 is an independent method claim and is believed to be patentable for the same reasons as given above

for claim 1. Claims 2-8 and 10-16 are dependent claims and are believed to be patentable for reasons given above with respect to the base claims.

Further, newly added independent claim 17 recites a method for converting text to concatenated voice by utilizing a digital voice library and a set of playback rules. Claim 17 specifically recites a method utilizing a limited set of recordings that represent a limited set of ligatures with adjacent speech items including only recordings having a phoneme at either end from a limited set of phonetic groups and recordings having no ligature distortions. This aspect of the invention is not suggested by Hata, and claim 17 is also believed to be patentable. Claim 18 further recites that the limited set of phonetic groups includes plosives, fricatives, affricates, nasals, laterals, trills, glides, vowels, diphthongs and schwa. This concept is also not suggested by Hata.

In summary, the specific combinations recited by claims 1-18 are believed to be patentable, and allowance of these claims is respectfully requested.

Respectfully submitted,  
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Claims 4-6 depend from Claim 1, and are also believed to be patentable for at least the reasons for patentability presented above for Claim 1. Note that Claims 4-6 stand rejected based on the same reference as Claim 1.

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